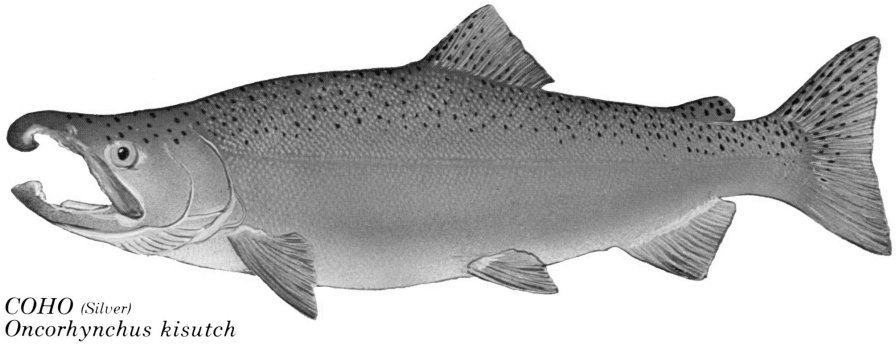
RECOVERY STRATEGY FOR CALIFORNIA COHO SALMON (*ONCORHYNCHUS KISUTCH*)

Report to the California Fish and Game Commission

August 2003



COHO (Silver)
Oncorhynchus kisutch

California Department of Fish and Game
The Resources Agency
State of California

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Prepared by
The California Department of Fish and Game

Species Recovery Plan Report 2003-1

August 2003

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Executive Summary

On August 30, 2002, the California Fish and Game Commission (Commission) found that coho salmon (*Oncorhynchus kisutch*) warranted listing as an endangered species under the California Endangered Species Act (CESA) from San Francisco north to Punta Gorda and as a threatened species from Punta Gorda to the California-Oregon border. The division of coho salmon in California follows the federal designation of Evolutionary Significant Units (ESU); the California Central Coast (CCC) Coho ESU and the Southern Oregon-Northern Coastal California (SONCC) Coho ESU. Rather than proceeding immediately with regulatory action, the Commission, pursuant to Fish and Game Code (FGC) section 2114, directed the Department of Fish and Game (Department) to prepare a recovery strategy for coho salmon within 12 months (pursuant to FGC §2105 et seq.)

The Department issued a report to the Commission describing the status of coho salmon north of San Francisco Bay. Available information indicates that coho salmon from San Francisco Bay to the Oregon border have experienced a significant decline in the past 40 to 50 years. Coho salmon abundance, including hatchery stocks, is currently 6 to 15% of their abundance during the 1940s. Coho salmon harvest decreased considerably in the late 1970s, despite a fairly stable rate of hatchery production. Recent abundance-trend information for several stream systems along the central and north coasts indicate an overall declining trend throughout California.

In accordance with the Comimission's direction, the Department established a 21-member California Statewide Coho Salmon Recovery Team (CRT) and a 12-member local coho salmon recovery team (SSRT) focusing on agricultural water and land uses in the Shasta and Scott river valleys. Both teams brought together people with various concerns and perspectives. The two teams aided the Department in development of a single strategy to recover coho salmon throughout its range in California.

The fundamental and statutorily required goal of this recovery strategy is to return coho salmon to level of sustained viability while protecting the genetic integrity of both ESUs, such that regulations or other protections under the California Endangered Species Act (FGC §2050 et seq.) are not necessary. The Department defines sustained viability as a future condition when naturally producing coho salmon are sufficient in abundance and in sufficient range and distribution to ensure

against extinction due to environmental fluctuation, stochastic events, and human land use impacts while allowing for incidental mortality of coho salmon and coho salmon by-catch associated with well-regulated ocean and recreation fisheries for other species of anadromous salmonids.

The recovery strategy has an additional goal to achieve harvestable populations of coho for tribal, recreational, and commercial fisheries.

GEOGRAPHIC SETTING

Coho salmon occur naturally in the northern Pacific Ocean and tributary drainages. It ranges in freshwater drainages from Hokkaido, Japan, and eastern Russia, around the Bering Sea and Aleutian Islands to mainland Alaska, and south along the North American coast to Monterey Bay, California. Within California, coho salmon historically ranged from the Oregon-California border, including the Winchuck and Illinois River watersheds, south to the streams of northern Monterey Bay, including small tributaries to San Francisco Bay.

Two coho salmon ESUs occur partially or entirely within California. The California portion of the SONCC ESU occurs in twelve California watersheds from Punta Gorda north to the Oregon border. The CCC ESU occurs entirely in six watersheds from Santa Cruz north to Punta Gorda.

RECOVERY GOALS

To achieve the fundamental and statutorily required goal of the recovery strategy, coho salmon must first reach the point where the regulations or other protections for coho salmon listed under CESA are not necessary, and the species may be delisted. The CRT requested, and the Department agreed, to an additional goal of restoring tribal, recreational, and commercial coho salmon fisheries in California (restoring fisheries). Improving coho salmon populations and habitat is the means to achieve these two objectives.

Five criteria have been identified to achieve delisting:

I. Maintain and protect the number and size of key populations of coho salmon.

II. Maintain and increase the number of spawning adults and maximize freshwater and estuary survival of juveniles in basins to a level that reduces the probability of extinction to an insignificant level.

III. Maintain and increase the range and distribution of coho salmon to a level that reduces the probability of extinction of an ESU to an insignificant level.

IV. Maintain and protect habitat essential for coho salmon.

V. Maintain, improve, and restore coho salmon habitat to a level that reduces the probability of extinction to an insignificant level.

An additional criterion has been identified for the second objective:

VI. Reach and maintain coho salmon population levels to allow for the resumption of tribal recreational, and commercial fisheries for coho salmon in California.

RECOVERY IMPLEMENTATION

The causes for the decline of coho salmon are many and complex. On the whole, the strategy for recovery of coho salmon involves:

a. Interim and long-term actions;

b. Equitable apportionment of both public and private support and action;

c. Equitable apportionment of regulatory and nonregulatory obligations;

d. Scientifically, technologically, and economically reasonable means;

e. Best available scientific data;

f. Financial investments; and

g. Long-term commitment and efforts of all involved in coho watersheds.

With the aid of the CRT, the Department developed a recovery strategy that will be implemented at two geographic levels. The first level is a larger, range-wide resolution. The recovery strategy identifies recommendations for range-wide issues. The second level is within each watershed. The recovery strategy identifies recommendations that apply to specific watersheds. These two levels allow for acting on recommendations that are more universal in their application and for taking specific actions intended for issues specific to a watershed. In line with this second course, the Department established the Shasta-Scott Pilot Program (SSP), a unique endeavor within the Shasta and Scott watersheds were coho salmon occur. The SSP contains a detailed analysis of agricultural water and land use issues in the Shasta and Scott valleys and a detailed set of recommendations in reference to such uses for recovery. Non-agricultural water and land use issues are addressed in the statewide recommendations and/or watershed-specific recommendations for the Shasta and Scott watersheds.

Several central elements underlie all levels of implementation. Those elements include: coho salmon population and habitat protection and restoration; cooperation and collaboration between public and private entities; education and outreach; implementation and enforcement of existing laws; and improved land management.

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